

reading data on the storage medium in response to a command, the data comprising
prefetch data and demand data;

storing the demand data in a region of memory; and

issuing an interrupt after the demand data has been stored in memory and while the
prefetch data is being read.

13. (Twice Amended) A machine-readable medium that stores instructions to read
data from a storage medium, the instructions causing a machine to:

read data on the storage medium in response to a command, the data comprising
prefetch data and demand data;

store the demand data in a region of memory; and

issue an interrupt after the demand data has been stored in memory and while the
prefetch data is being read.

25. (Twice Amended) An apparatus for reading data from a storage medium,
comprising:

a memory which stores computer instructions; and

a processor which executes the computer instructions to (i) read data on the storage
medium in response to a command, the data comprising prefetch data and demand data, (ii)
store the demand data in a region of memory, and (iii) issue an interrupt after the demand
data has been stored in memory and while the prefetch data is being read.--

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Please add new claims 46 to 72, as follows:

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46. (New) A method of reading data from a storage medium, comprising:
reading data on the storage medium in response to a command, the data comprising
prefetch data and demand data;
storing the demand data in a region of memory; and
issuing an interrupt after the demand data has been stored in memory;
wherein the demand data is read from a first location on the storage medium and
the prefetch data is read from a second location on the storage medium, the first location
preceding the second location in a direction of movement of the storage medium during
reading.

47. (New) The method of claim 46, further comprising consulting a database to
determine when to issue the interrupt.

48. (New) The method of claim 47, wherein the database comprises instructions
for storing the data and for issuing the interrupt.

49. (New) The method of claim 47, wherein the database comprises a
scatter/gather list.

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50. (New) The method of claim 46, further comprising reading additional prefetch data from a third location on the storage medium, the third location preceding the first and second locations in a direction of movement of the storage medium during reading.

51. (New) A machine-readable medium that stores instructions to read data from a storage medium, the instructions causing a machine to:

read data on the storage medium in response to a command, the data comprising prefetch data and demand data;

store the demand data in a region of memory; and

issue an interrupt after the demand data has been stored in memory;

wherein the demand data is read from a first location on the storage medium and the prefetch data is read from a second location on the storage medium, the first location preceding the second location in a direction of movement of the storage medium during reading.

52. (New) The machine-readable medium of claim 51, further comprising instructions that cause the machine to consult a database to determine when to issue the interrupt.

53. (New) The machine-readable medium of claim 52, wherein the database comprises instructions for storing the data and for issuing the interrupt.

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54. (New) The machine-readable medium of claim 52, wherein the database comprises a scatter/gather list.

55. (New) The machine-readable medium of claim 52, further comprising instructions that cause the machine to read additional prefetch data from a third location on the storage medium, the third location preceding the first and second locations in a direction of movement of the storage medium during reading.

56. (New) An apparatus for reading data from a storage medium, comprising:
a memory which stores computer instructions; and
a processor which executes the computer instructions to (i) read data on the storage medium in response to a command, the data comprising prefetch data and demand data, (ii) store the demand data in a region of memory, and (iii) issue an interrupt after the demand data has been stored in memory;

wherein the demand data is read from a first location on the storage medium and the prefetch data is read from a second location on the storage medium, the first location preceding the second location in a direction of movement of the storage medium during reading.

57. (New) The apparatus of claim 56, wherein the processor executes instructions to consult a database to determine when to issue the interrupt.

58. (New) The apparatus of claim 57, wherein the database comprises instructions for storing the data and for issuing the interrupt.

59. (New) The apparatus of claim 57, wherein the database comprises a scatter/gather list.

60. (New) The apparatus of claim 56, further comprising reading additional prefetch data from a third location on the storage medium, the third location preceding the first and second locations in a direction of movement of the storage medium during reading.

61. (New) A method of reading data from a storage medium, comprising:
reading data on the storage medium in response to a command, the data comprising prefetch data and demand data, the prefetch data being read from an area of the storage medium that precedes the demand data in a direction of movement of the storage medium during reading and from an area of the storage medium that follows the demand data in a direction of movement of the storage medium during reading;
storing demand data in a region of memory; and
issuing an interrupt after demand data has been stored in memory.

62. (New) The method of claim 61, further comprising consulting a database to determine when to issue the interrupt.

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63. (New) The method of claim 62, wherein the database comprises instructions for storing the data and for issuing the interrupt.

64. (New) The method of claim 62, wherein the database comprises a scatter/gather list.

65. (New) A machine-readable medium that stores instructions to read data from a storage medium, the instructions causing a machine to:

read data on the storage medium in response to a command, the data comprising prefetch data and demand data, the prefetch data being read from an area of the storage medium that precedes the demand data in a direction of movement of the storage medium during reading and from an area of the storage medium that follows the demand data in a direction of movement of the storage medium during reading;

store demand data in a region of memory; and

issue an interrupt after demand data has been stored in memory.

66. (New) The machine-readable medium of claim 65, further comprising instructions that cause the machine to consult a database to determine when to issue the interrupt.

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67. (New) The machine-readable medium of claim 66, wherein the database comprises instructions for storing the data and for issuing the interrupt.

68. (New) The machine-readable medium of claim 66, wherein the database comprises a scatter/gather list.

69. (New) An apparatus for reading data from a storage medium, comprising:
a memory which stores computer instructions; and
a processor which executes the computer instructions to (i) read data on the storage medium in response to a command, the data comprising prefetch data and demand data, the prefetch data being read from an area of the storage medium that precedes the demand data in a direction of movement of the storage medium during reading and from an area of the storage medium the follows the demand data in a direction of movement of the storage medium during reading, (ii) store demand data in a region of memory, and (iii) issue an interrupt after demand data has been stored in memory.

70. (New) The apparatus of claim 69, wherein the processor executes instructions to consult a database to determine when to issue the interrupt.

71. (New) The apparatus of claim 70, wherein the database comprises instructions for storing the data and for issuing the interrupt.

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72. (New) The apparatus of claim 70, wherein the database comprises a
scatter/gather list.--

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